

Columbia River Salmon and Steelhead Endorsement Recreational Angler Board
Application for Funding

Applicant: Washington Department of Fish and Wildlife (WDFW)

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Proposal Title: Lower Columbia River Mainstem Summer and Fall Chinook Salmon Mark-Selective Sport Fishery Creel Sampling - **renewal**

Type of Proposal: Maintain the existing mark-selective Columbia River summer Chinook sport fisheries below Bonneville Dam and fall Chinook below the Lewis River

Date of Submission: April 2016

Effective Period of Funding: June 1, 2016 through September 30, 2016, with report writing December 2016

Amount of Funding Requested: \$47,331

Activity to be funded: Sample salmonid anglers on the lower main-stem Columbia River during the mark-selective summer Chinook and fall Chinook salmon sport fisheries from mid-June through July and early to mid-September, respectively.

Background: Mark-selective sport fisheries are under increasing scrutiny by the region's fisheries co-managers because some fish are required to be released and a number of the released fish will incur mortality. It is important for WDFW to provide the most accurate estimates of catch and effort to demonstrate to co-managers that WDFW has confidence in how the fisheries are being managed.

Summer Chinook: Since 2002, the majority of the summer Chinook salmon hatchery production has been mass-marked with an adipose fin clip. Natural-spawning populations also contribute significantly to the run and the stock is managed as a composite population.

Supplementation programs and improved natural habitat have played a significant role in the trends in increased abundance observed since 1999. In addition, 2013 marked the first brood-year for the large Chief Joseph Hatchery summer Chinook salmon program. The first returns from these releases will be three year-olds in 2016.

Upper Columbia summer Chinook salmon are not listed under the Endangered Species Act (ESA) and the population is currently considered healthy. Harvest sharing agreements are in place with treaty Indian and non-treaty Indian commercial and lower and upper Columbia sport fishers.

Fall Chinook: Since 2001, the majority of the fall Chinook salmon hatchery production has been mass-marked with an adipose fin clip. The first mark-selective Columbia River main-stem fall Chinook salmon sport fishery was implemented in 2012. Due to impact limits to ESA-listed stocks, primarily lower river wild fall Chinook salmon, the main-stem Columbia River sport fishery has been restricted from the desired seven days a week season.

The area downstream from the Lewis River is either closed to Chinook salmon retention or limited to mark-selective fishery regulations. The goal of the fishery managers is to provide at least one week of mark-selective fishing downstream of the Lewis River beginning sometime in early to mid-September. In recent years, the fishery has been extended in-season for up to three weeks total.

Proposed Activity: This project would provide staff and equipment to sample anglers and catch on the Columbia River during the mark-selective fisheries for summer and fall Chinook salmon. Activities would occur from mid-June through July (summer Chinook salmon) and early to mid-September (fall Chinook salmon).

Basic sampling protocols, consistent with the region-wide monitoring programs, will be performed in cooperation with other staff and funding sources. These activities will include angler interviews, sampling the retained harvest, and obtaining biological information from harvested fish. Information collected will be used to estimate 1) angler trips, 2) the mark rate in the fisheries (marked and unmarked encounters), 3) the number of fish released and the number of mortalities and 4) stock composition of marked and unmarked mortalities estimates using coded-wire tags and/or genetic data. This project will assist region-wide efforts to meet the minimum 20% kept fish sample rate goal.

Effort/Assistance Required: Fund four additional temporary scientific technicians to supplement the existing Columbia River summer and fall Chinook salmon sampling programs below Bonneville Dam.

Additional fishery sampling assistance will be provided by the Tag Recovery Program staff funded by the Bonneville Power Administration, Mitchell Act funds administered by the National Marine Fisheries Service (NMFS), and Mass Mark Support Program funds provided by WDFW. The fisheries in the lower Columbia River are jointly sampled and managed by WDFW and Oregon Department of Fish and Wildlife.

Budget Summary: Salaries and Benefits

Scientific Technician 2 (7 months @ \$4,765*/month) \$33,355

Personnel Service Charge \$ 216

Goods and Services

Office/Field supplies \$ 1,800

Vehicle lease (7 months @ \$663.80/mo.+ 15,900 miles @ 0.46/mile) \$11,960

Total Budget Amount \$47,331

*includes raises provided to all WDFW scientific technicians in FY15-16

Need for Proposed Activity: These activities are necessary to implement and manage successful mark-selective sport fisheries and to provide accurate estimates of catch and effort. There is a minimum sampling goal of 20% of the kept catch that meets the requirements for mixed stock fishery sampling. Additional funding from the CRSSE funds is needed to meet as near as possible the sample goal.

With increasing scrutiny on state-managed fisheries by co-managers and the NMFS, WDFW is determined to maintain as much opportunity as possible for recreational fisheries while still meeting ESA requirements by providing statistically defensible standards for fishery sampling.

Public/Angler Benefit: The angler trips and catch for the summer Chinook salmon mark-selective fishery are shown in the tables below. Note: The 5,900 adult summer Chinook salmon in 2015 were the most fish kept since at least 1969.

Angler Trips and Catch of Adult Summer Chinook in the Main-Stem Columbia River below Bonneville Dam, 2010-2015.

Year	Angler Trips	Chinook Kept	Chinook Released
2010	70,700	2,500	1,300
2011	75,800	5,200	2,800
2012	80,700	2,900	2,600
2013	52,000	1,800	1,500
2014	53,700	2,000	2,700
2015	50,600	5,900	1,500

Angler Trips and Catch of Adult Fall Chinook in the Main-Stem Columbia River below the Lewis River, 2013-2015.

Year	Angler Trips	Chinook Kept	Chinook Released
2013	19,700	3,500	7,900
2014	13,200	2,200	5,300
2015	7,100	1,300	3,800

The summer Chinook salmon mark-selective fishery generated \$2,900,000 to \$4,700,000 annually from 2010 - 2015. The fall Chinook salmon mark-selective fisheries generated \$400,000 to \$1,100,000 annually from 2013 - 2015 (TCW 2008).

Benefit to Resource: Mark-selective fisheries are necessary to meet the goals of maintaining and enhancing fishing opportunities, removing surplus hatchery fish, and protecting and rebuilding wild stocks.

Additional Considerations: With increasing emphasis to harvest hatchery fish and efforts to reduce impacts to wild fish, information from this year's mark-selective mainstem sport fisheries will continue to help lay the ground work and shape future fisheries.

References:

TCW Economics. 2008. Economic Analysis of the Non-Treaty Commercial and Recreational Fisheries in Washington State. Prepared for: Washington Department of Fish and Wildlife. With Technical Assistance from: The Research Group Corvallis, OR. TCW Economics, Sacramento, CA. December 2008.